

NBP CEM: Jourly Data Summary

Period: 07/16/03 00:00:59 To 07/17/03 23:59:59, Records = 34

| | Fue | Factor | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | iĝŨ | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
|-------------------|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|----------|------------|------------|------------|------------|----------------|------------|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------------|--------------|
| | Oper | Min. | 09 | 9 | 9 | 8 | 9 | 9 | 9 | 09 | 9 | 8 | 90 | 99 | 8 | 99 | 8 | 9 | 8 | 09 | 8 | 93 | 09 | 99 | 99 | 8 | 6 | 99 | 8 | 8 | 9 | 99 | 90 | 8 |
| | | Mthd | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 99 | 8 | 8 | 8 | 00 | 8 | 00 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | 05 05 | S | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | 8 |
| - | | % C02 | 11.0 | 10.8 | 10.6 | 10.6 | 10.8 | 10.5 | 10.1 | 10.0 | 10.4 | 9.6 | 9.9 | 10.3 | 10.3 | 10.4 | 10.3 | 10.3 | 10.2 | 10.1 | 10.2 | 10.4 | 10.3 | 10.3 | 10.3 | | 10.3 | 10.4 | | 10.6 | _ | | | 40.4 |
| | 1 | Mthd | 01 | 5 | 0 | 10 | 10 | 10 | 5 | 5 | 5 | 5 | 5 | 01 | 7 | 5; | 5 | 10 | 01 | 6 | 2 | 5 | 01 | 2 | 01 | 5 | 5 | 5 | 5 | 2 | | 5 | 5 3 | 5 |
| 9 | υl | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 00 | 90 | 8 | 00 | 00 | 8 | 8 | 8 | 8 | 8 | 8 | _ | | | | 3 |
| | 1 | | 317.4 | 321.8 | 338.9 | 341.9 | 337.3 | 352.9 | 464.6 | 357.1 | 317.4 | 277.9 | 274.3 | 276.6 | 282.4 | 283,4 | 284.8 | 281.9 | 275.7 | | | | | | | | | | | | _ | | 297.2 0 206.5 0 | |
| | ĺ. | Bias | 900 | 000 | 000 | 000 | 000 | 000. | 000 | 000 | 000 | 000 | 00. | 000 | | | | | | | | | | | | | | | | | | - | | |
| 400 | | | | 0.0 | 0:0 | 0.0 | 0.0 | • | 0.0 | _ | _ | • | | | • | | | 0.0 | | • | • | • | | | - | | | | | | | | 0.00 1.000 | |
| Stack Flow (coft) | 5 | - | 5 | 01 | 5 | 5 | 01 | 5 | 2 | 0 | | | | | | | | 0 | | | | | | | | | | | | | | | | |
| 7064 | | | | | | | | | | | | | | | | _ | | | | | | | | | | 5 6 | | | | 5 8 | | | | 5 |
| V . | | | | | 3864000 | 3966000 | 3960000 | 3960000 | 4962000 | 3852000 | 3798000 | 4116000 | 405000 | 402000 | 4050000 | 4068000 | 4098000 | 4194000 | 4470000 | 4050000 | 4056000 | 4056000 | 400000 | 4000000 | 4044000 | 3050000 | 2070000 | 397,000 | 397 2000 | 4200000 | | 4038000 | 4368000 | |
| | | Dias | 90. | - 8 | 00. | 1.000 | 1.000 | 000 | 1.000 | 000. | 000. | 3 6 | 3 | 200 | 000. | 3 | 000 | 9 | 000 | 000 | 30. | 000 | 50.5 | 3 8 | 3 6 | | | 8 8 | 9 6 | | | | | |
| 2 | - | | | | | | | • | | • | | | • | • | | | | | , , | ' ' | | | - • | | | | | • | • | | • | | | |
| NOx lb/mBtu | 3 | | - , | | . , | | , , | - , | | | | | | | | • | _ (| ' ر | υ (| <i>.</i> | . | 2 C | , c | · - | · c | • • | <i>•</i> | <i>i</i> c | | | 00 | 0 0 | 0.0 | |
| NOX | | _ | | | | _ | | | | 5 8 | | | | | _ | | • | | | 5 6 | 5 6 | 5 5 | 5 6 | 5 6 | 5 | 9 | 9 | 5 | 2 | 6 | 2 | 6 | 01 | |
| | Adi | | | | | 0.093 | 0.677 | 0.727 | 6 6 | 0.757 | 0.030 | 0.595 | 0.577 | 0.589 | 0.586 | 0.00 | 2.034 2.034 | 2000 | 00.0 | 0.230 | 0.570 | 0.588 | 0.596 | 0.604 | 0.589 | 0.580 | 0.583 | 0.592 | 0.577 | 0.577 | 0.607 | 0.603 | 0.613 | |
| Heat | MBtu | 234.0 | 225.0 | 2.000 | 224.0 | 239.0 | 234.0 | 228.0 | 2.0.0 | 219.0 | 220.0 | 223.0 | 230.0 | 232.0 | 235.0 | 234.0 | 240.0 | 253.0 | 22.00 | 230.0 | 235.0 | 233.0 | 233.0 | 232.0 | 225.0 | 227.0 | 230.0 | 227.0 | 251.0 | 255.0 | 235.0 | 238.0 | 252.0 | |
| Š | Lbs | 0.620 | 0.640 | 0.687 | 0,693 | 674 | 0.07.0 | 0 980 | 792.0 | 0.656 | 0.622 | 0.595 | 0.577 | 0.589 | 0.586 | 0.594 | 0.588 | 0.581 | 0.598 | 0.594 | 0.579 | | | | 0.589 | 0.580 | 0.583 | 0.592 | | 0.577 | 0.607 | 0.603 2 | 0.613 2 | |
| Load | Bin | 2 | ĸ | | | | | | | | | | 5 | 2 | 2 | | | | | | | | 5 | 5 | 5 0. | 5 0. | 5 0. | 5 0. | 5 | 5.0 | 5 0.0 | 9.0 | 5 0.6 | |
| Total Steam 1 | | 3 | 80 | 52 | 2 | 3 2 | . 18 | 86 | 6,2 | 2.82 | 80 | 79 | 80 | 80 | 80 | ñ/ | 81 | 81 | ; <u>&</u> | 8 | 82 | 81 | 18 | 80 | 79 | 80 | 80 | 79 | 88 | 68 | 82 : | 80 | 23 | |
| Unit Oper | (£ | 1.00 | 00.1 | 00. | 00. | 1.00 | 1.00 | 1.00 | 1.00 | .00 | 1.00 | 1.00 | 9. | 09. | 1.00 | 3 | 0.1 | 1.00 | .00 | .00 | 2 | 8 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | _ | _ | |
| | ည (| 08 | 08 | 08 | 1 80 | 98 | 08 | 08 | 88 | 1 80 | 08 1. | 08 1. | C8 1. | 08 1. | 08 1. | .: | • | | • | • | | 3 1.00 | 3 1.00 | 3 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| | Hour F | 0 | _ | ~ | ص ص | 4 | 2 | 9 | 7 | 80 | 6 | 10 0 | 11 (| 12 0 | 13 0 | 77 | 15 08 | 16 08 | 7 08 | 18 08 | 19 08 | 080 | 1 08 | 2 | 3 08 | 88 | 90 | 80 | 80 : | 90 | 88 | 88 | 08 | į |
| | | 0 | 0 | 0 | 0 | 0 | 0 | c | c | C | c | _ | _ | _ | | | - | - | _ | +- | | 20 | 73 | 22 | 23 | 0 | - | ., | n | 4 | ιD | 9 | ~ | , |
| | Date | 07/16/03 0 | 07/16/03 0 | 07/16/03 0 | 07/16/03 0 | 07/16/03 0 | 07/16/03 0 | 07/16/03 0 | 07/16/03 0 | 07/16/03 0 | 07/16/03 0 | 07/16/03 | 07/16/03 1 | 07/16/03 1 | 07/16/03 1 | 07/16/03 1 | 07/16/03 1 | 07/16/03 1 | 07/16/03 1 | 07/16/03 1 | 07/16/03 1 | 07/16/03 2 | 07/16/03 2 | 07/16/03 2 | 07/16/03 2 | 07/17/03 0 | 07/17/03 0 | 07/17/03 0 | 07/17/03 0 | 02/11/03 0 | 07/11/03 0 | 07/11/03 0 | 07/17/03 0 | PC - Proceed |

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Page 2

| Oper Min. 8 | P75 - Method Codes: 01 - Primary Monitoring System Greater than 01 indicates the Data Substitution Method used |
|--|--|
| MC Mthd % CO2 MC Mthd 00 00 10.1 00 00 00 00 01 10.2 00 00 11.0 11. | P75 - Method Codes: 19 - Sample Interface Malfunction 01 - Primary Monitoring System 20 - Corrective Maintenance Greater than 01 indicates the 21 - Blowback Data Substitution Method used 22 - Analyzer Under/Over Range 198 - Authoritic Calibration |
| Adj. Mthd Avail Bias ppm N 3954000 01 0.0 1.000 276.9 (4098000 01 0.0 1.000 278.4 (4070118 300.7 4962000 464.6 | 14 - Recalibration Made 15 - Preventive Maintenance 20 - Corrective Maintenance 19 - Sample Interface Mail Solution 21 - Blowback Slyzer 17 - Ancillary Analyzer Maifunction 18 - Data Handling System Maifunction 98 - Automatic Calibration |
| Adj. Mthd Avail Bias 0.589 01 0.0 1.000 0.587 01 0.0 1.000 0.625 0.989 | MC - Monitoring Codes: 06 - Clean Process Equipment 00 - Data Valid 07 - Clean Control Equipment 10 - Required Adjustment No 08 - Normal Operation 11 - Excess Orfft Primary An 09 - Other 12 - Excess Drift Ancillary An 13 - Process Down |
| 222.0 232.0 232.0 234 278 | |
| 0.589 0.587 0.625 0.989 | ocess Eq introl Equ)peration |
| Steam Load Klb/hr Bin 80 5 81 5 81 5 98 | 06 - Clean Process Eq 07 - Clean Control Equ 08 - Normal Operation 09 - Other |
| Date Hour PC (Hr) Kil 07/17/03 0 8 08 1.00 07/17/03 0 9 08 1.00 Report Average: Report Max Values: | PC - Process Codes: 01 - Changing Fuels 02 - Crintrol Equipment Malfunction 07 - Clean Control Equipment 03 - Startup 04 - Shuddown 05 - Process Down Neport printed on: 07/17/03 10:21:05 |

NBP CEM: Jourly Data Summary

Period: 07/16/03 00:00:59 To 07/17/03 23:59:59, Records = 34

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| Adj. Attile III Americal Americal Americal American | i.e. | | , | | | | , , | | | | | | | | | | | | | |
|--|--------------------|----------------|---------|-------|------|-------|---------|------------|-----|----|----------|----------|-------|-------|---|------|--------|------------|------|--------|
| Mink | _ | Total Steam | | | NOX | Heat | ž |)x (b/m | 3tu | v) | tack Flo | day w | | • | ځ | | 5 | ţ | | |
| 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, | (Hr) klb/hr Bin | klb/hr Bin | | 2 | Š | MBtu | | Mthd | = | 1 | Meh | | | 1 | | | | u 1 | Ope | |
| 10 10 10 10 10 10 10 10 | 08 1.00 84 5 0.620 | 28 20 | | 0.62 | o | 234.0 | | | | | | Avail | Dias | | | | % % | | Min. | Factor |
| 10 10 10 10 10 10 10 10 | 08 1.00 80 5 0.640 | 80 5 | | 0.640 | _ | 225.0 | 0.640 | 5 6 | | | | 5 | 200 | 317.4 | | | | | 9 | 1800 |
| 7. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. | 08 1.00 79 5 0.687 | 79 5 | | 0.687 | | 228.0 | 764.0 | 5 8 | | | | 0.0 | 1.000 | 321.8 | | | | | 9 | 1800 |
| 7.0. 5.2. 9. 0. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. | 10 | 83 5 | | 0 693 | | 234.0 | 0.007 | 5 8 | | | | 0.0 | 1.000 | 338.9 | | | | | 9 | 1800 |
| 0.0.772 0.0 1.00 < | . 20 . 00 | . 20 . 70 | | 0.67 | , _ | 230.0 | 0.093 | 5 3 | | | | 0.0 | 1.000 | 341.9 | | _ | | | 99 | 1800 |
| 7.7.2.2. 01 0.0 1,000 396,000 0.1 1,000 454,6 to 0.0 0.1 1,000 0.0 1,000 452,000 0.1 1,000 357,7 to 0.0 0.1 1,000 452,000 0.1 1,000 357,7 to 0.0 0.1 1,000 450,000 0.1 1,000 277,3 to 0.0 0.1 1,000 400,000 0.1 1,000 478,000 0.1 1,000 277,3 to 0.0 0.1 1,000 90 6 | 81 3 | 81 3 | | 5.5 | - 0 | 7340 | 0.07.1 | 5 7 | | | | 0.0 | 1.000 | 337.3 | | | | | 9 | 1800 |
| 0.7589 0.1 0.0 1.000 454.6 0.0 1.01 0.0 <th< td=""><td>1.00 98 6</td><td>. 9 . 86</td><td></td><td>0 980</td><td></td><td>0.162</td><td>0.727</td><td>5 3</td><td></td><td></td><td></td><td>0.0</td><td>1.000</td><td>352.9</td><td></td><td>_</td><td></td><td></td><td>9</td><td>1800</td></th<> | 1.00 98 6 | . 9 . 86 | | 0 980 | | 0.162 | 0.727 | 5 3 | | | | 0.0 | 1.000 | 352.9 | | _ | | | 9 | 1800 |
| 0.556 01 0.0 1.00 3822000 01 0.0 1.00 0.0 1.00 0.0 | 79 5 | 79 5 | | 0.767 | | 2,0.0 | 0.303 | 5 3 | | | | 0.0 | 1.000 | 464.6 | | | | | 99 | 1800 |
| 0.652 01 0.0 1.00 317.4 0 01 10.4 00 06 0 | 78 5 | 78 5 | | 0.656 | | 219.0 | 0.707 | 5 2 | | | | 0.0 | 1.000 | 357.1 | | | | | 90 | 1800 |
| 0.594 0.1 0.0 1.00 277.3 0.0 9.6 0.0 6.0 0.6595 0.1 0.0 1.00 274.3 0.0 1.00 274.3 0.0 1.00 0.0 | 80 5 | 80 5 | | 0.622 | | 220.0 | 0.030 | 5 5 | | | _ | 0.0 | 1.000 | 317.4 | | | | | 99 | 1800 |
| 0.0 0.0353 0.1 0.0 4.0 0.0 0.1 0.0< | 5 62 | 5 62 | | 0 505 | | 222.0 | 0.022 | 5 2 | | | | 0.0 | 1.000 | 277.9 | | | | | 8 | 1800 |
| 0.5494 0.0 0.0 1.00 27.5 0.0 1.00 20.5 0.0 1.00 0.0 <th< td=""><td>80 5</td><td>80 5</td><td></td><td>0.577</td><td></td><td>230.0</td><td>0.093</td><td>5 8</td><td></td><td></td><td>_</td><td>0.0</td><td>1.000</td><td>274.3</td><td></td><td></td><td></td><td></td><td>8</td><td>1000</td></th<> | 80 5 | 80 5 | | 0.577 | | 230.0 | 0.093 | 5 8 | | | _ | 0.0 | 1.000 | 274.3 | | | | | 8 | 1000 |
| 0.584 0.1 0.0 1.000 282.4 0.0 0.1 10.3 0.0 1.000 60 0.0 1.00 0.0 <t< td=""><td>ı ın</td><td>80 5</td><td></td><td>0.589</td><td></td><td>232.0</td><td>200</td><td>5 8</td><td></td><td></td><td>_</td><td>0.0</td><td>1.000</td><td>276.6</td><td></td><td></td><td></td><td></td><td>99</td><td>1800</td></t<> | ı ın | 80 5 | | 0.589 | | 232.0 | 200 | 5 8 | | | _ | 0.0 | 1.000 | 276.6 | | | | | 99 | 1800 |
| 0.594 01 0.0 1.00 293.4 0.0 0.1 10.4 0.0 1.00 0.0 0 | . 80 | 80 60 7 | | 0.586 | | 225.0 | 200.00 | 5 8 | | | | 0.0 | 1.000 | 282.4 | | | | | 8 | 1800 |
| 0.584 0.1 0.0 1.000 40983000 0.1 0.0 1.000 284.8 0.0 0.1 10.3 0.0 | 5 62 | 5 62 | | 25.00 | | | 0.385 | 5 8 | | • | | 0.0 | 1.000 | 283.4 | | | | | 99 | 1500 |
| 0.584 01 0.0 1.00 1.00 1.00 1.00 1.00 0.0 1.00 0.0 | 3 2 2 | 81 5 | | 0.569 | | | 0.334 | 5 8 | | | | 0.0 | 1.000 | 284.8 | | | | 8 | 8 | 1800 |
| 0.594 01 0.0 1.000 275.7 00 01 10.2 00 00 60 0.598 01 0.0 1.000 2470000 01 0.0 1.000 281.1 00 01 10.1 00 00 60 0.598 01 0.0 1.000 4056000 01 0.0 1.000 282.1 00 01 10.2 0.0 0.0 60 0.579 01 0.0 1.000 282.1 00 01 10.2 0.0 0.0 60 60 0.589 01 0.0 1.000 4058000 01 0.0 1.000 282.0 00 01 10.3 00 60 60 0.589 01 0.0 1.000 4058000 01 0.0 1.000 287.5 00 01 10.3 00 60 60 0.580 01 0.0 1.000 287.5 0 0 | 81 5 | 81 5 | | 7.581 | | | 0.000 | 5 8 | | | | 0.0 | 1.000 | | | | | 8 | 9 | 1800 |
| 0.534 01 0.0 1.00 281.1 00 01 10.1 00 01 00 01 10.1 00 01 00 02.34 01 10.0 1.000 281.1 00 01 10.1 00 < | 80 5 | 80 5 | | 598 | | | - 00.00 | 5 8 | | | | 0.0 | 1.000 | | | | | 8 | 8 | 1800 |
| 0.579 0.1 1.00 4.056000 0.1 1.00 282.1 0.0 0.1 10.2 0.0 | 80 5 | , ro | | .594 | | | | 5 8 | | | | 0.0 | 1.000 | | | | | 8 | 9 | 1800 |
| 0.588 01 0.0 1.000 280.4 00 01 10.4 00 10.4 00 00 60 0.588 01 0.0 1.000 4058000 01 0.0 1.000 285.8 00 01 10.3 00 60 0.598 01 0.0 1.000 4058000 01 0.0 1.000 285.8 00 01 10.3 00 00 60 | ស | ស | | 579 | | | | 5 6 | | | | 0.0 | 1.000 | | | | | 8 | 9 | 1800 |
| 0.594 01 0.0 1.00 282.0 00 01 10.3 00 01 10.0 10.00 283.6 00 01 10.3 00 00 60 60 0.580 01 0.0 1.000 283.6 00 01 10.4 00 00 60 60 0.597 01 0.0 1.000 284.6 00 01 </td <td>81 5</td> <td>5</td> <td></td> <td>588</td> <td>•</td> <td></td> <td></td> <td>÷</td> <td></td> <td></td> <td></td> <td>0.0</td> <td>1.000</td> <td></td> <td></td> <td>_</td> <td></td> <td>8</td> <td>99</td> <td>1800</td> | 81 5 | 5 | | 588 | • | | | ÷ | | | | 0.0 | 1.000 | | | _ | | 8 | 99 | 1800 |
| 0.589 01 0.0 1.00 285.8 00 01 10.3 00 60 0.5894 01 0.0 1.000 289.6 00 01 10.3 00 60 0.589 01 0.0 1.000 289.6 01 10.1 0.0 10.3 00 60 0.580 01 0.0 1.000 276.7 00 01 10.3 00 00 60 0.580 01 0.0 1.000 287.0 01 10.1 00 01 10.0 277.9 00 01 10.4 00 60 0.581 01 0.0 1.000 287.0 00 01 10.4 00 00 60 0.577 01 0.0 1.000 4260000 01 0.0 1.000 287.5 00 01 10.4 00 00 60 0.577 01 0.0 1.000 4280000 | 81 | · 10 | | 989 | | | | 5 6 | | | | 0.0 | 1.000 | | | | | 8 | 09 | 1800 |
| 0.589 01 0.0 1.000 4062000 01 1.000 289.6 00 01 10.3 00 00 60 0.589 01 0.0 1.000 275.7 00 01 10.1 00 00 60 0.589 01 0.0 1.000 386000 01 0.0 1.000 277.9 00 01 10.1 0.0 0.0 60 0.580 01 0.0 1.000 3972000 01 0.0 1.000 283.6 00 01 10.4 00 00 60 0.577 01 0.0 1.000 4260000 01 0.0 1.000 284.6 00 01 10.3 00 00 60 0.577 01 0.0 1.000 4290000 01 0.0 1.000 284.6 00 01 10.4 00 00 60 0.607 01 0.0 1.000 287.5 | 80 5 | ı ıç | | , 604 | | | | | | | | 0.0 | 1.000 | | | | | 8 | 99 | 1800 |
| 0.580 01 0.0 1.000 275.7 00 01 10.1 00 00 60 0.580 01 0.0 1.000 275.9 01 10.3 00 00 01 10.3 00 <t< td=""><td>79 5</td><td>8</td><td></td><td>.589</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0</td><td>000.</td><td></td><td></td><td></td><td></td><td>8</td><td>99</td><td>1800</td></t<> | 79 5 | 8 | | .589 | | | | | | | | 0.0 | 000. | | | | | 8 | 99 | 1800 |
| 0.583 01 0.0 1.000 3350000 01 0.0 17.9 00 01 10.3 00 01 10.3 00 01 10.3 00 01 10.4 00 01 00 01 10.4 00 00 00 01 10.4 00 00 60 00 | S | S | | 580 | | | | | | | | 0.0 | | | | | | 8 | 9 | 1800 |
| 0.592 01 0.0 1.000 3978000 01 0.0 1.000 283.6 00 01 10.4 00 00 60 0.592 01 0.0 1.000 283.6 00 01 10.3 00 | ĸ | ĸ | | 583 | ٠, ، | | | | | | | 0.0 | | | | | | 00 | 9 | 1800 |
| 0.577 01 0.0 1.000 3972000 01 0.0 1.000 283.6 00 01 10.3 00 00 60 0.577 01 0.0 1.000 4260000 01 0.0 1.000 284.6 00 01 10.6 00 00 60 0.577 01 0.0 1.000 4290000 01 0.0 1.000 287.5 00 01 10.7 00 00 60 0.603 01 0.0 1.000 4088000 01 0.0 1.000 297.2 00 01 10.6 00 00 60 0.603 01 0.0 1.000 4038000 01 0.0 1.000 297.2 00 01 10.6 00 00 60 0.613 01 0.0 1.000 4368000 01 0.0 1.000 296.5 00 01 10.4 00 00 60 10.000 1.000 | 79 5 | 5 | | 593 | | | | | | | | 0.0 | | | | 10. | | 8 | 9 | 1800 |
| 0.577 01 0.0 1.000 4260000 01 0.0 1.000 284.6 00 01 10.6 00 00 60 0.577 01 0.0 1.000 4290000 01 0.0 1.000 287.5 00 01 10.7 00 00 60 0.607 01 0.0 1.000 4068000 01 0.0 1.000 297.2 00 01 10.4 00 00 60 0.603 01 0.0 1.000 4038000 01 0.0 1.000 297.2 00 01 10.6 00 00 60 0.613 01 0.0 1.000 4368000 01 0.0 1.000 296.5 00 01 10.4 00 00 60 1 | | u r | 5 0.577 | 577 | ٠ , | | | | _ | | | 0.0 | | | | 10. | | 8 | 8 | 1800 |
| 0.507 01 0.0 1.000 4290000 01 0.0 1.000 287.5 00 01 10.7 00 00 60 0.000 0.000 01 0.0 1.000 4068000 01 0.0 1.000 293.6 00 01 10.4 00 00 60 0.000 0.603 01 0.0 1.000 4038000 01 0.0 1.000 297.2 00 01 10.6 00 00 60 0.001 0.0 1.000 4368000 01 0.0 1.000 296.5 00 01 10.4 00 00 60 1 | 1.00 | י ר | 0.317 | 575 | 4 (| | | | • | | 5 | 0.0 | | | | 10.6 | | 8 | 8 | 1800 |
| 0.507 01 0.0 1.000 4068000 01 0.0 1.000 293.6 00 01 10.4 00 00 60 0.003 01 0.0 1.000 4038000 01 0.0 1.000 297.2 00 01 10.6 00 00 60 0.0513 01 0.0 1.000 4368000 01 0.0 1.000 296.5 00 01 10.4 00 00 60 1 | 1.00 82 5 |) u | 70.00 | - 10. | v (| | | | •- | | 5 | 0.0 | | | | 10.7 | | 8 | 09 | 1800 |
| 0.6013 01 0.0 1.000 4038000 01 0.0 1.000 297.2 00 01 10.6 00 00 60 0.0613 01 0.0 1.000 4368000 01 0.0 1.000 296.5 00 01 10.4 00 00 60 | 20 08 | י ע | 70007 | 700 | v (| | | | | - | 01 | 0.0 | | | | 10.4 | 8 | 8 | 9 | 1800 |
| 0.613 01 0.0 1.000 4368000 01 0.0 1.000 296.5 00 01 10.4 00 00 60 | 100 80 5 | ט ר | | 3 5 | 4 (| | | | | | 10 | • | | | | 10.6 | | 8 | 9 | 1800 |
| | 8 | n | | 5 | N | | | | | - | 01 | - | | 2 | | 10.4 | | 8 | 8 | 1800 |

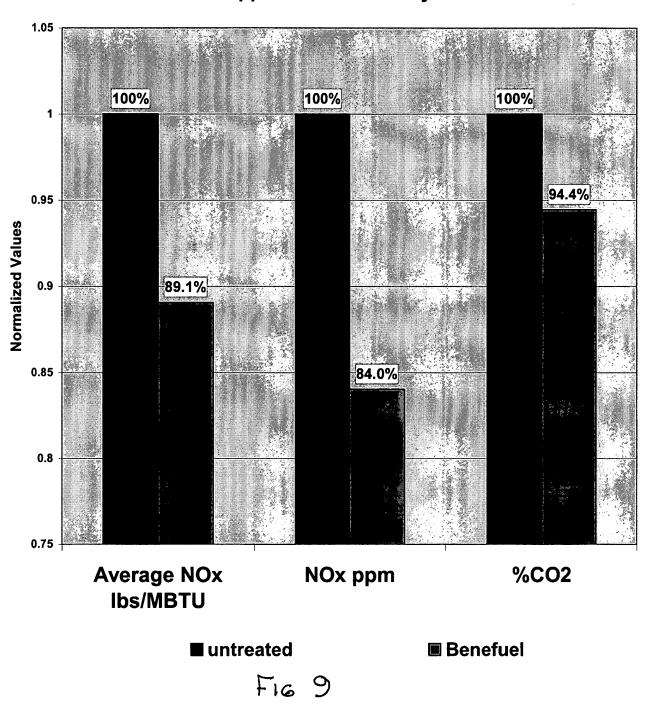
| P75 - Method Codes: 19 - Sample Interface Malfunction 01 - Primary Monitoring System 20 - Corrective Maintenance Greater than 01 indicates the 21 - Blowback Data Substitution Method used 22 - Analyzer Under/Over Range 96 - Automatic Calibration | |
|---|--|
| 19 - Sample Interface Malfunction 20 - Corrective Maintenance 21 - Blowback 22 - Analyzer Under/Over Range on 96 - Automatic Calibration | 99 - Software Adjust |
| MC - Monitoring Codes: 10 - Data Valid 11 - Recalibration 10 - Required Adjustment Not Made 15 - Preventive Maintenance 11 - Excess Drift Primary Aralyzer 12 - Excess Drift Ancillary Analyzer 13 - Process Down 14 - Recalibration 15 - Analyzer Under/Over F 16 - Data Handling System Malfunction 98 - Automatic Calibration | *** |
| r Codes: justment Not Made Primary Aralyzer Ancillary Analyzer nn | The second secon |
| MC - Monitoring 06 - Clean Process Equipment 00 - Data Valid iton 07 - Clean Control Equipment 10 - Required Ad 08 - Normal Operation 11 - Excess Drift 12 - Excess Drift 13 - Process Dox | |
| 01 : Changing Fuels 02 : Control Equipment Malfunction 07 03 : Startup 04 : Shutdown 05 - Process Down | • |

Benefuel Product Performance Coal Based Synfuel

Produced by Chemical Change Reagent

Pulverized Coal-Fired Boiler

0.92% Application Rate July 2003



Benefuel Product Performance Coal Based Synfuel

Produced by Chemical Change Reagent J-316
Pulverized Coal-Fired Boiler Low NOX Burner
0.92% Application Rate November 2003

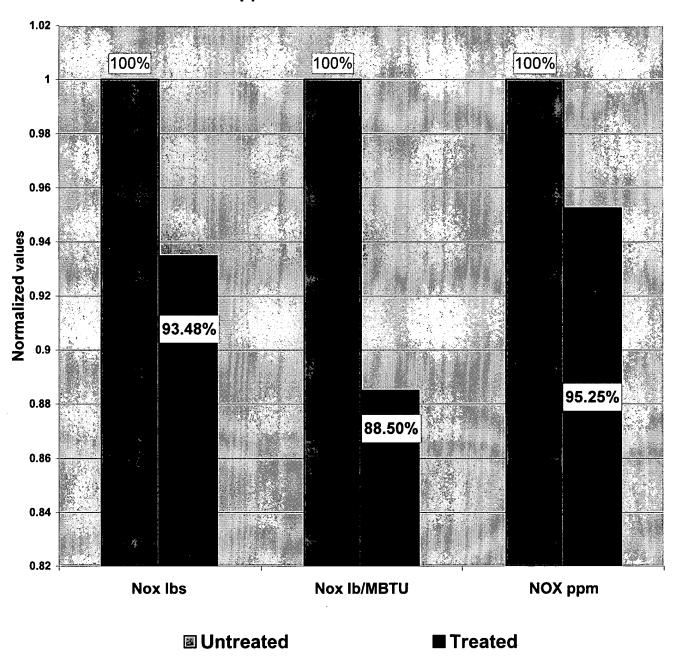


FIG 10

Table I.

| Test | Burner | Tons of Coal Treated | Treatment Location | Application Rate | Benefuel Product |
|---------------|----------|----------------------------|-------------------------|---------------------|---------------------|
| July 2003 | Standard | 136 | Utility plant coal yard | 0.8 wt% | 67% |
| November 2003 | Low-NOx | 400 | Norton, VA | 0.9 wt% | 53% |

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Table II

| | Average Steam Generated | Average NOx | Average Heat Input | Stack Flow | NO- | | Average Coal |
|----------|-------------------------------|----------------|-----------------------|---------------|------------|--------|------------------------|
| Data Set | k lb/hr | lbs/MBTU | | SCFH | NOx ppm | % CO2 | Consumption Tons/hr |
| Control | 82.0 | | | | | | |
| Benefuel | 80.2 | 0.590 | 233 | 4091857 | 279 | 10.2% | 9.7 |
| Change % | -2.20% | -10.95% | 0.43% | 5.60% | -15.96% | -5.56% | 0.00% |

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Figure 1.

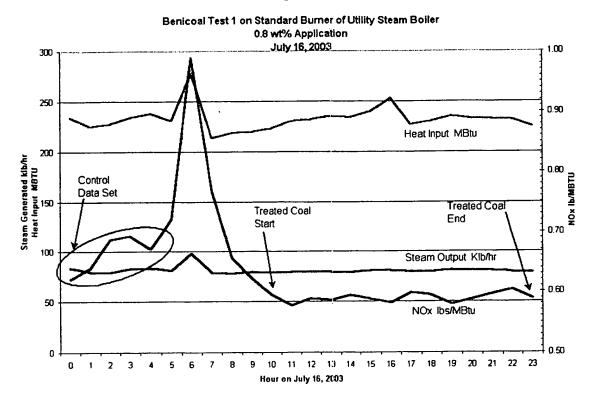


FIG 13

Table III

| | Average | | | | | | |
|-----------|-----------|----------|------------|---------|-------|-------|--------------|
| | Steam | Average | Average | Stack | | | Average Coal |
| | Generated | NOx | Heat Input | Flow | NOx | | Consumption |
| Data Set | k lb/hr | lbs/MBTU | MBTU/hr | SCFH | ppm | % CO2 | Tons/hr |
| Untreated | 110.4 | 0.426 | 160.74 | 2739600 | 209.4 | 10.6 | 6.5 |
| Treated | 117 | 0.377 | 169.75 | 2686500 | 199.5 | 11.4 | |
| | 5.6% | -12.9% | 5.3% | -2.0% | -5.0% | 7.2% | 5.3% |

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